UNITED STATES DEPARTMENT OF AGRICULTURE
Radio Service
OFFICE OF INFORMATION

YOUR FARM REPORTER AT WASHINGTON. Wednesday, July 1, 1931

NOT FOR PUBLICATION.

Speaking Time: 10 Minutes. All Regions

SHIPPING LIVESTOCK IN HOT WEATHER.

OPENING ANNOUNCEMENT: "SHIPPING LIVESTOCK IN HOT WEATHER." That, ladies and gentlemen, is what Your Washington Farm Reporter is going to talk about in to-day's FARM REPORTER program broadcast from Station _____ in cooperation with the United States Department of Agriculture. All right, Mr. Reporter, you're on the air.

--ooOoo--

Folks, I want to talk to you for a little while to-day about shipping livestock during the hot summer months. I'm talking on this subject because one of the radio listeners asked me to do so and because it's a subject of vital importance to every shipper of livestock.

According to the little red calendar in my office this is the first day of July. That means summer time and hot weather. However, people eat in hot weather as well as at other seasons and for that reason it's necessary to keep the endless chain of food supplies constantly moving regardless of season or climate.

Livestock products are used extensively in the human diet. In order to supply the constant demand for these various meat products it's necessary to ship animals to market in hot weather as well as during other seasons.

It's profitable to get these animals to market in the best condition during hot weather even though the cost of transportation may be slightly greater.

In order to be able to give you listeners the latest information on this subject of shipping livestock in hot weather I went over to the United States Bureau of Animal Industry the other day and had a talk with Dr. S. O. Fladness, in charge of livestock transportation studies, and his assistant, Mr. A. J. Raub.

According to Dr. Fladness hogs suffer more from shipment in hot weather than other farm animals. As a matter of fact, other farm animals stand up under hot weather shipment so much better than hogs that I'm going to devote the remainder of this program to the subject of shipping hogs in hot weather.

A hog has a layer of fat which helps to keep it warm in winter and hot in summer. Hence it's very easy to overheat a hog in hot weather. A little exertion or a little excitement will often cause a hog serious trouble on a hot day. That's bad for the hog - and for the bank account of the shipper.

"How are you going to prevent it?" I asked Dr. Fladness.

"By following hot-weather shipping rules and being careful," was Dr. Fladness's reply.

He says that it's generally bad practice to drive market hogs in hot weather. The ideal way to handle such animals is to haul them to the market or to the railroad loading yards where they can be loaded under careful supervision.

Where hogs have to remain at the yards several hours before they can be loaded, Dr. Fladness suggests that they be showered or sprayed with water at intervals of two or three hours, especially on hot days.

"What about bedding?" I questioned.

"Sand is the best," he replied. Straw or hay are not suitable material for bedding hog cars during hot weather. They are all right for winter and cold weather, but sand is the best for summer use."

At this point in the conversation Mr. Raub said that he liked the idea of giving the sand a thorough wetting just before the hogs are loaded.

"I like it too," Dr. Fladness cut in," and I know it pays because wet sand holds moisture for several hours and that helps to keep the hogs cool and comfortable even on a mighty hot day."

"Any precautions about the actual loading of the hogs," I asked.

"Yes," Dr. Fladness replied, "there are three."

"What are they?" I asked.

"Handle them quietly, carefully, and don't overload" he answered.

I wasn't quite sure that I understood his meaning of these three terms, so I asked for further information.

"Well," said Dr. Fladness, "a farmer who has gone to the trouble and expense of raising hogs up to the market age, and who has them ready for shipment to market, can't afford to be careless in the handling of such animals when they are so near the goal ---- and the bank account.

"Excitement is hard on hogs in hot weather. For that reason carry on loading operations in a quiet and peaceful manner.

"Of course, it's necessary to exercise the best of judgment when shipping hogs in hot weather. For instance, it isn't always necessary to shower hogs late in the evening if they are to spend most of the night crossing a cool mountain range. On the other hand it's necessary to see that hogs are comfortably fed and watered until they reach the market. Please notice that I said comfortably fed ----- and NOT HEAVILY FED. Stuffing hogs when they are enroute to market in hot weather makes them more susceptible to overheating. Dr. Fladness says feed them enough to make them comfortable and keep them satisfied and contented, and that's enough. There are, of course, minimum feed requirements specified under the 28-hour law. In other words, shipping hogs in hot weather is an operation that calls for the application of plenty of common, every-day horse sense, and the shipper who is careful and sensible in his shipping operations, and who follows well-established shipping rules ----- will nearly always win even in the hottest of summer weather.

Dr. Fladness says that it's especially dangerous and nearly always unprofitable to crowd or overload hogs in hot weather, and that many hot-weather losses are attributable to overloading.

A few ice bags suspended above a load of hogs keeps the air cooler and permits cold water to drip down on the hogs and the floor of the car. This is especially beneficial in helping to keep hogs cool when they are on long journeys in hot weather.

Weather reports are now available in practically every section of the United States. Shippers can watch these reports and make shipments accordingly. For instance, shipments can often be delayed a few days in the face of a predicted hot wave. Such precautions sometimes result in the saving of much money.

In shipping hogs during hot weather it's necessary to start right and stay right until the hogs are delivered to the market. The following suggestions will aid shippers in many sections:

First, use a sand floor, if possible, and wet it down just before loading the hogs. Second, shower the hogs and the floor with water just before loading. Showering will be repeated at intervals by the transportation companies if such instructions are given on the waybills. And third, use ice bags when it's convenient and if it can be done without excessive cost.

Remember to be careful, quiet, and sensible in loading and shipping operations ----- Don't overload, and don't forget to consult the Weather reports.

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CLOSING ANNOUNCEMENT: Ladies and gentlemen, this closes the Washington Farm Reporter program broadcast from Station _____ in cooperation with the United States Department of Agriculture.

UNITED STATES DEPARTMENT OF AGRICULTURE

Radio Service

YOUR FARM REPORTER AT WASHINGTON. Friday, July 3, 1931.

NOT FOR PUBLICATION

Speaking Time: 10 Minutes All Regions.

WHAT IS A DAIRY HERD-IMPROVEMENT ASSOCIATION?

OPENING ANNOUNCEMENT: "WHAT IS A DAIRY HERD-IMPROVEMENT ASSOCIATION?" That's the question Your Washington Farm Reporter is going to try to answer today in his regular broadcast from Station____in cooperation with the United States Department of Agriculture. All right, Mr. Reporter.

--ooOoo--

As I was strolling across the Department of Agriculture grounds in Washington a few days ago I ran across my old friend James E. Dorman of the Bureau of Dairy Industry. He was busily engaged watching some men planting soybeans on the lawn in front of the new Agriculture building.

After a friendly slap on the back I said, "Well, Jim, what's new in the dairy world today?"

"You know," he said "we've had a lot of letters lately asking for information about Dairy Herd-Improvement Associations. That strengthens my opinion that 1931 is going to be a year of constructive breeding, feeding, and managing of dairy herds in the United States."

We sat down on some sacks of soybean seed and watched the planting operations while Mr. Dorman explained the object and nature of Dairy Herd-Improvement Associations.

A Dairy Herd-Improvement Association is an organization of dairy farmers in a local community who cooperatively employ a man to test their cows to increase the efficiency and economy of their production of milk and butterfat. The tester spends one day a month on each farm, and while there he gets for each cow in the herd a complete record of milk and butterfat production, feed consumption, feed cost, gross income, and income over cost of feed. Using these records as a guide, the farmer and the tester figure out better methods of feeding, care, and management. They eliminate all cows that do not respond profitably to good feeding, and that, naturally, helps to put milk production on an efficient basis.

According to Mr. Dorman, there are about 26 dairy farmers in an association. The tester spends one day at each farm and there are about 26 working days in the average month, so 26 is about the maximum number

of members that can belong to one association, unless more than one tester is employed.

One tester can test about 35 cows a day, and if some members have two or three times that number of cows it's necessary for the tester to remain for more than one day at these places. Under such conditions the number of cows determines the number of members.

I asked Mr. Dorman to tell me about the origin of dairy herd-improvement association work.

"It had its beginning in Denmark," he replied. "That was about 1896. Just ten years later, or in 1906, the first dairy herd-improvement association in this country was organized in Newaygo County, Michigan."

Advertisers in this country have a slogan which says a thing has to be good to get very far and last very long. I applied that test to the association work by asking Mr. Dorman if this first association was still operating.

"Yes indeed," was his quick response. "It's been going constantly since its organization in 1906."

At the end of its first year's work this new association had complete records on 239 dairy cows. According to the best available information the average butterfat production per cow, for all the dairy cows in the United States about 1906 was something like 145 pounds. The 239 cows on record at the end of the first year's work in this first association produced an average of 215 pounds of butterfat per cow, or 70 pounds more than the average for all cows in the country.

Putting it another way, dairy herd-improvement association work is based on facts and figures, records and realities. It enables a farmer to eliminate guessing when it becomes necessary to cull out the low and inefficient producers, and places him in a position to produce milk at low cost.

Now let's review the rapid growth of the dairy herd-improvement association work in the United States.

In 1906 there was 1 association in 1 State.
In 1907 there were 4 associations in 1 State.
In 1915 there were 315 associations in 25 States.
In 1920 there were 452 associations in 36 States, while
In 1930 there were 1,112 associations in 45 States.

On January first, 1931, there were 510,714 cows on test in the 1,112 dairy herd-improvement associations in this country. That's a splendid growth for the association work, but it represents only one-fiftieth of the dairy cows in the United States.

Perhaps the greatest need of our dairy industry, indeed of all agricultural industries, is accurate and dependable records. No industry, whether it makes ice cream or automobiles, can maintain the most favorable

advantage in world competition and make a profit without giving careful attention to efficiency in production.

For the average farmer under ordinary conditions, the best method of obtaining information on the cost of producing milk, is through the dairy herd-improvement association records. The main purpose of such associations is to obtain records on the cost of production of milk and butterfat for each individual cow in the herd.

With such information at hand it's an easier matter for a dairyman to curtail total production without seriously affecting his total income, simply by weeding out the less efficient producers in the herd.

Before a dairyman can make very much money milking cows he's got to know how much milk each cow is producing and how much it is costing to produce that milk. The best way to obtain this information is to keep records------good records------records that will rate each cow on profit or loss from her production. That, according to Mr. Dorman, is the business of the dairy herd-improvement associations. They strive to lay an unbiased record of each cow before her owner. I'm trying to point out the wisdom of keeping records, and I'm using the dairy herd-improvement associations as an example, because they keep records and have found it profitable to do so.

Mr. Dorman's statement that dairymen are seeking information on the organization and operation of dairy herd-improvement associations indicates that more dairymen are tired of being on the wrong side of the ledger and that they want to get their balances in black by keeping records and KNOWING which cows are paying and which ones are not.

Of course, records will not solve all dairy problems, but they'll be a great help.

If you want to know how records have helped the members in the 1,112 dairy herd-improvement associations in the 45 States in this country, ask Station_____to send you a free copy of Farmers' Bulletin No.1604-F, entitled "DAIRY HERD-IMPROVEMENT ASSOCIATIONS AND STORIES THEIR RECORDS TELL."

Your County Agricultural Agent or your State College of Agriculture, or the U. S. Bureau of Dairy Industry in Washington, D. C., will gladly give you information on how to go about it to organize one of these associations, if there isn't one in your neighborhood already.

CLOSING ANNOUNCEMENT: This, ladies and gentlemen, closes the Farm Reporter program broadcast from Station_____. Write either this Station or the United States Department of Agriculture in Washington,D.C., for a free copy of Farmers' Bulletin No.1604-F, entitled "DAIRY HERD-IMPROVEMENT ASSOCIATIONS AND THE STORIES THEIR RECORDS TELL."

UNITED STATES DEPARTMENT OF AGRICULTURE
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YOUR FARM REPORTER AT WASHINGTON

Release Monday, July 6, 1931.

NOT FOR PUBLICATION

Speaking Time: 10 Minutes.

Crops and Soils Interview No. 25: THIS AND THAT.

ANNOUNCEMENT: Your Farm Reporter at Washington today brings us a report on several different things. He has been to several different specialists of the United States Department of Agriculture. Among the topics discussed were small scale farming, saving garden seed, and how to detect insect outbreaks. --- Well, Mr. Reporter? --

--oo--

Dr. C. J. Galpin, of the Bureau of Agricultural Economics, calls our attention to small farms and small farmers.

He holds that it is time we were giving more attention to the small farm problem.

He figures that about 40 per cent of our farm folks live on farms of less than 50 acres. We now have about 10,000,000 people living on such small farms.

And, Dr. Galpin insists, those small farms are not all divided-up acreages of big cotton and tobacco holdings, as some people seem to think. He points out that in the East North Central States of Ohio, Indiana, Illinois, Michigan, and Wisconsin, 24 per cent of our farms are under 50 acres. And in the West North Central States, the Dakotas, Nebraska, Kansas, Minnesota, Iowa, and Missouri, the States of supposedly large-sized farms, 15 per cent of the farms are small farms. Even in Iowa 16 per cent of all the farms contain less than 50 acres each.

Dr. Galpin says recent investigations show that many of those farmers stick to the small farm because they would rather own a small farm than rent a larger one. Other farmers prefer the small farm because they feel more at home with the small type of job than in the bigger responsibilities of the larger farm. Still another class of small farmers appreciate the small farm first of all as a place to live. They reckon the small farm as equivalent to the larger farm as a place for the family without large expense or great responsibility to produce.

It is generally conceded that small farms can not be operated to advantage along the same lines of farm practice as large farms. But Dr. Galpin claims that is no sign they can not be operated advantageously on principles specially adapted to small-scale farming. He points out that small business are run in a different way from large businesses, yet there are thousands and thousands of legitimate small businesses. Small factories are run on a different system from big factories, yet we still have thousands and thousands of small factories.

And in Denmark where more than 50 per cent of the farms are in small holdings ranging from 1½ to 25 acres, a system of special production and marketing for small farmers seems to have been worked out so they can exist alongside of the big farmers.

Anyway, Dr. Galpin suggests we need serious investigation of ways of improving production and the level of living for our small farmers. He also reminds us that there is more to this whole question of small farms than shows up in a mere dollars and cents analysis. For instance, Europe has always owed a debt to its mountaineers. And the highlands of Scotland, the mountains of Switzerland, and the rugged slopes of Norway, all the abodes of small farmers, have been and still are famous for their people.

Now, let's turn for a moment to some of the vegetables raised in our home gardens.

Dr. Daniel N. Shoemaker, of the Bureau of Plant Industry, suggests it might be well for some of us to go back to that good old fashioned custom of saving seed for home growing.

As Dr. Shoemaker points out, the home gardener can often select his seed better than the big-scale seed grower; and, what's more, the plants selected will be the ones which succeed best under local environment.

It will rarely pay the truck gardener who produces a few things in large quantity for shipment to produce his own seed. But the home gardener can often meet his own seed needs, at least for some of his vegetables.

Nowdays, truck gardening is a big scale business. Vegetables are produced for shipping long distances. As a result, we have fewer varieties handled than we had, and those have most often been selected for shipping and market qualities, rather than for high cooking quality.

But some of you may remember when there were local gardeners around a lot of markets who jealously guarded the seed of certain varieties and strains which represented years of intelligent selection in their own hands. You can still find a few of those gardeners around some of our old market-garden centers. Here and there you find farmers and villagers who cling to "family" varieties of certain vegetables.

Dr. Shoemaker says that is a good idea. The production of improved strains by gardeners is something to be encouraged. In fact, there is a Farmers' Bulletin that gives plain and explicit directions for saving the seed of garden vegetables on a small scale.

I'm mentioning this, so you can write for it right away, so you can save some of this year's seed. Ask for Farmers' Bulletin No. 1390 on "Vegetable Seeds for Home and Market Garden."

Some of you grain farmers, however, may be more interested in the bulletin on "How to Detect Outbreaks of Insects and Save the Grain Crops." That one is Farmers' Bulletin No. 835 and deals with, or rather tells how to deal with, such well-known pests as Hessian fly, chinch bugs, army worms, cutworms, grasshoppers, white grubs, billbugs, corn root aphids, and wireworms.

You know, about harvest time, chinch bugs leave wheat or rye or barley fields and head for the nearest corn fields. You can protect corn from chinch bugs by trapping the bugs on the march. To do this, first smooth the woil so as to make as firm and compact a path as possible along the margin of the field to be protected. Then pour a narrow line of creosote along this path. When the chinch bugs come to the line they stop and turn aside. Apparently they don't like the smell of the creosote. It's a good idea to have a line of post-holes 30 or 40 feet apart in the ground along the tar line. The bugs, coming to the tar line, walk along it looking for a place to get through, and tumble into one of these holes.

In fighting insects, you need to look ahead. For instance, if you have had land in grass for a considerable time and it is likely to have cut worms in it, and expect to plant it to corn next spring, you want to plow it this summer or early this fall. The earlier the year before the grassland is plowed, the less chance cutworms will have to lay their eggs on it.

Wireworms are one of the hardest kinds of insects to control because they work underground. Plowing immediately after the first hay cutting, usually early in July, and cultivating deeply the rest of the summer is one of the best ways to prevent wireworm injury in sodland you plan to put in corn next year.

But you had better get that bulletin. It will give all the different steps in the fight on the different insects. Also keep in close touch with your county agent, State experiment station, and Federal entomological station. Report all serious insect outbreaks to some of those officials and get their expert advice. Of course, you keep a supply of insecticides and a practical spraying outfit on hand at all times.

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ANNOUNCEMENT: The bulletins mentioned are free as long as the supply lasts. Write for them either to this Station or direct to the U. S. Department of Agriculture, at Washington, D. C. "How to Detect Outbreaks of Insects and Save the Grain Crops" is Farmers' Bulletin No. 835. The bulletin on "Vegetable Seeds for the Home and Market Garden" is Farmers' Bulletin No. 1390.

UNITED STATES DEPARTMENT OF AGRICULTURE

Radio Service

OFFICE OF INFORMATION

YOUR FARM REPORTER AT WASHINGTON. Wednesday, July 8, 1931

NOT FOR PUBLICATION.

Speaking Time: 10 Minutes. All Regions.

IT'S CULLING TIME IN THE POULTRY YARD.

OPENING ANNOUNCEMENT: Ladies and gentlemen, Your Washington Farm Reporter has some information for us to-day on the CULLING OF CHICKENS. These Farm Reporter programs are broadcast from Station _____ in cooperation with the United States Department of Agriculture. All right, Mr. Reporter, tell us what's on your mind.

--ooOoo--

Culling poultry, Mr. Announcer, that's the thing that's on my mind to-day, and it's there because this is the eighth of July and time to round up the birds that are to produce eggs during the season of higher egg prices this fall.

Poultry raisers to-day are very much like the old farmer who said to his wife one day, "Well, Mary, reckon I'll go sit the old hen."

Raising her head from a magazine Mary exclaimed, "John --- don't say sit --- say set."

"Oh, all right," replied John rather meekly, "I don't care whether hens sit or set, what I'm interested in is when they cackle are they laying or lying.

With economic conditions in the country as they are it is important that hens lay and not lie. That's distinctly the impression I get from my poultrymen friends, and from Mr. A. R. Lee, poultry specialist of the United States Bureau of Animal Industry. They agree that now is a good time for all poultrymen to work for greater efficiency in their flocks. Please notice that I didn't say the production of more eggs. No siree. We have enough eggs now to take care of everybody and then some. That's why this is a good time to talk and think about efficiency in the production of eggs.

Picking up a bulletin from his desk Mr. Lee said, "Here's something that will aid poultry farmers in obtaining more efficiency in egg production."

"What is it?" I questioned.

"This," he replied, "is a copy of Farmers' Bulletin No. 1614-F, entitled "BUSINESS RECORDS FOR POULTRY KEEPERS." He went on to say that poultrymen who keep records are in a position to know whether they are making money, breaking even, or going in the hole, and that such information is worth a great deal when prices are on the fence between profit and loss.

"Well," I said, "suppose the records reveal a loss, what's the poultryman going to do then?"

"Cull out the unprofitable and inefficient layers," he replied, "get rid of the old hens that have passed the efficient production stage, and also cull the unpromising birds from the pullet flock."

"Aren't you a little severe in this culling program?" I questioned.

"Yes, I am," he replied, "but not too severe. There is no use in keeping loafing and inefficient birds to eat up the profits from the efficient ones, especially when prices are low and eggs plentiful. Commercial poultrymen, as a rule, produce eggs more efficiently than farmers. They do it because they cull and recull until only efficient layers remain in their flocks."

"How long should a farmer keep a hen?" I asked.

"Of course, that depends" Mr. Lee replied, "but, and as a rule, a hen is rarely ever profitable after the second or third laying season."

Mr. Lee tells me that practically all farm flocks contain a considerable number of STAR BOARDERS --- that is, hens that lie more than they lay, but whether they lay or lie they eat, and eating is expensive. Taking the country as a whole, the average farm flock of, say, 100 hens has from 15 to 30 low and inefficient producers, a few good layers, and a larger intermediate group of hens which give just fair production.

Trap nesting is the ideal way to find out whether a hen is lying or laying, but trap nesting is not practical on the average farm. There the best plan is to keep flock records. Farmers' Bulletin 1614 explains such records fully.

I told you a moment ago that commercial flocks produce eggs more efficiently than farm flocks. They do. Records prove it. The commercial flocks give an average production of from 150 to 160 eggs per bird, while farm flocks generally average from 125 to 130 eggs per bird.

Now, suppose you have a flock of 100 hens and that from 15 to 30 of these are inefficient and unprofitable producers. These hens will probably lay no more eggs until next winter. Culling them out of the flock now seems to me to be the height of good judgment. By culling now you can cut down

the feed bill by about one-fourth without affecting egg production at all.

Take the older hens, for instance. I've already told you that hens are rarely ever profitable layers after the second or third laying seasons. Mr. Lee says that careful tests at the Government farm at Beltsville, Md., show that Leghorns will drop off from 20 to 30 per cent in production after the first year. Heavier fowls drop off still more rapidly, and production takes an even sharper drop the second and third years. Getting rid of old hens not only puts the flock on a more efficient production basis, but it tends to reduce disease in the flock, especially tuberculosis, which is more prevalent in older birds.

According to Mr. Lee, care and management have a lot to do with the efficient production of eggs. For instance, before you actually begin culling operations this summer, be sure that your flock is in GOOD CONDITION. Remember that the condition of the flock is influenced by feeding, by disease - or its absence - and by insect pests. A poorly managed flock may be an unprofitable flock because the birds are hungry, lousy, or sick. Some of these birds would doubtless be good producers if they were properly fed and managed. Therefore, before you start culling, get the flock in good condition physically.

"Mr. Lee," I asked, "when is the <u>time</u> to cull?"

He answered that question by saying, "<u>Now</u> is the time to start summer and early fall cullings. First, get rid of the old hens whose physical appearance indicates they are poor layers. A little later in the summer eliminate the next lowest group of layers. Cull again in September and October, and at this time mark the <u>best</u> hens in the flock for use as breeding stock in the spring."

Vigor and good, physical condition are the first indications of a good layer at this time of year. For instance:

When a hen is NOT laying her comb and wattles are shrunken, comparatively hard, and pale and dull in color. A laying hen has a plump, bright-red comb which appears to be full of blood, waxy, and rather soft in texture.

When fowls are laying freely the color of their legs is inclined to bleach or fade. Again, the pubic bones ---- one on each side of the vent -- are spread well apart and are flexible in a good layer. The abdomen of a good layer is soft and flexible below the vent, and of course, it's a well-known axiom that early molters are usually poor layers and that late molters are good layers. Good layers will not start to molt until about September or October.

Remember also that about one-half of the laying flock this fall should be composed of pullets, and that poor producers should be marketed at this season as soon as they are culled. Old hens and inefficient layers don't pay for their keep. They are in the way, and there's no object in helding hens at this season because the price tends to go lower rather than higher.

Folks, let me close by saying that the main object of to-day's program is to remind you that IT'S TIME TO BEGIN THE SUMMER AND EARLY FALL CULLINGS NOW. If you want to refresh your memories on the details of culling, ask for a copy of Farmers' Bulletin No. 1524-F, entitled FARM POULTRY RAISING. Get rid of the inefficient producers by culling them out of the flock now before they eat up any more profit.

CLOSING ANNOUNCEMENT: This closes the Washington Farm Reporter program broadcast from Station _____ in cooperation with the Federal Department of Agriculture. Write either this station or the United States Department of Agriculture in Washington, D. C., for copies of Farmers' Bulletin No. 1614-F entitled BUSINESS RECORDS FOR POULTRY KEEPERS, and Farmers' Bulletin No. 1524-F, called FARM POULTRY RAISING.

UNITED STATES DEPARTMENT OF AGRICULTURE

Radio Service

OFFICE OF INFORMATION

YOUR FARM REPORTER AT WASHINGTON. Friday, July 10, 1931.

NOT FOR PUBLICATION

Speaking Time: 10 Minutes. All Regions.

WARTS ON CATTLE

OPENING ANNOUNCEMENT: Ladies and gentlemen, this is the day Your Farm Reporter broadcasts his regular LIVESTOCK program from Station _____ in cooperation with the United States Department of Agriculture. The subject for this occasion is WARTS ON CATTLE, and Your Reporter will now report on that subject.

-ooOoo-

Well folks, since this is the tenth of July and vacation time for a lot of people, we'll open to-day's program by recalling the story of the city dweller who decided to spend his vacation fishing in the country.

After traveling quite a distance the vacation hunter found himself on the banks of a beautiful stream in a dense forest. "Ah," said he, "this must be an ideal fishing place, and it's such a wild and wooly country that I'll just pitch camp and stay here and enjoy nature.

The fisherman's hook had not played with the unresponsive waters very long until a keen-witted farmer appeared on the scene. "Hello stranger," said the farmer, "having any luck?" "Naw," replied the stranger, "but you certainly do see some funny sights way out here in the country." "Yes, you sure do," replied the departing farmer, "they get off of nearly every train at this season of the year."

Speaking of strange sights reminds me that it's possible to see a lot of strange as well as interesting things going on in the Nation's Capital at almost any season of the year. Take the United States Department of Agriculture, for instance. My experience as Your Washington Farm Reporter has led me to believe that a person could spend weeks and weeks looking over the results of scientific investigations made by that one branch of the Federal Government. Let me illustrate with just one example.

As I was passing through a hallway of the main Agricultural Building the other day I spotted a large piece of "speckled" leather tacked on a board. I say large because it must have been four feet long by two or three feet wide, and I say "speckled" because it looked as though it had been riddled with a well-aimed load of buckshot. Well, sir, that be-speckled target got

the best of my curiosity, and I walked over to the attendant at the board and asked for information.

When I spoke, a man in a white coat rose from behind the board and I recognized my friend Dr. G. T. Creech of the Pathological Division of the United States Bureau of Animal Industry. Dr. Creech, by the way, has been with Uncle Sam for more than 25 years, and since he came from the mountains of eastern Kentucky he is by nature a good judge of skins, hides, and leather.

"What is it doctor?" I asked nodding to the speckled leather.

"That," said Dr. Creech, "is a piece of finished leather made from the hide of a warty steer."

Honestly folks, I don't believe you could cut a half-dozen shoe soles from that whole piece of leather without including some of the wart holes. It was literally full of them.

Warty hides are about five times as numerous as they were five years ago. At least that's the opinion of reliable meat packers, and of an expert of the Tanners' Council of America.

Warts cut down the commercial value of hides from a few per cent to as high as 25 per cent or more. Where warts occur on the skins of animals the tanned or finished hides have roughened or weak spots. Leather finished from such hides has a moth-eaten appearance and is practically worthless, because of these defects resulting from the warty growths.

Since warts are on the increase, and since some cattle buyers are beginning to "dock" warty cattle, I thought perhaps you listening stockmen might like to have a little more information on the subject, so I unlimbered my question machine by asking Dr. Creech for a definition of a wart.

"Well," he said, "of course, there are several kinds of wart-like growths, but the ordinary wart, commonly found on cattle, is simply an abnormal growth of the skin structure.

"Do you know the cause of warts?" I asked.

"Yes, and no," he replied. "We know that warts are caused by a filterable virus, and that warts are infectious, or "catching," but beyond that, we don't know very much about the nature of the cause of these growths."

"Did you say they are 'catching?'" I questioned.

"Yes," he said, "they are infectious, or 'catching,' if you prefer to put it that way." Then he gave me the result of some wart experiments he conducted a short time ago.

Out of a total of 22 cattle inoculated with wart material, fifteen animals developed warts. The results of another experiment show that it's possible to produce warts by inoculation with wart material, and to take material from <u>these</u> experimental warts and transmit the warts to another animal,

or produce a third generation of warts from the original wart.

I asked Dr. Creech how long it took to develop warts in the inoculation process.

"Well," he said, "there was some evidence of a growth at the end of the second month after the inoculation. By the end of the third month there were a number of well-formed warts, and by the end of the sixth month there were plenty of large well-developed warts."

The results of these and other wart experiments that Dr. Creech outlined convinced me that it's possible to spread warts through the inoculation process, but I wasn't quite sure about natural farm conditions so I asked about that.

To answer that question Dr. Creech went to his files and brought out a letter from a farmer who turned a warty heifer into a pasture containing a number of young calves and yearlings with NO warts. In a few months he noticed warts on some of the original calves and before very long most of the animals had warts in some form or other.

I asked Dr. Creech if old animals are more susceptible to warts than young animals, and he said, "NO. It's just the other way round. Young animals are more susceptible to warts than older cattle."

Then he told me that warts sometimes disappear as animals become older. Just why is not quite understood, but nevertheless it's true.

I asked if climate had anything to do with wart development, and he told me that it probably did not, that warts are more or less general wherever animals are found regardless of climate or section. I was told, however, that packers find a higher percentage of hides affected with warts during the summer season than at other times. I also learned that warts seldom cause the death of animals but when very large they do sap the vitality and often stunt the growth of calves and yearlings.

I asked Dr. Creech about removing warts with "magic" but a grin was the only reply I got to that question.

Small warts can be removed by clipping, tying off, or by using acetic acid, tincture of iodine, or castor oil. If warts are numerous and cover large areas of the body, it may be advisable to give an internal wart treatment like Fowler's solution of arsenic, but in all such cases it's advisable to consult a reliable veterinarian because arsenic is a poison.

Before leaving Dr. Creech and the be-speckled piece of warty leather I was presented with a copy of a brand new Department of Agriculture Leaflet No. 75-L, entitled "WARTS ON CATTLE." If you are interested in preventing your cattle from getting warts, or in removing warts from animals that have them, let me suggest that you get a copy of this new publication because it tells you HOW TO DO IT.

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CLOSING ANNOUNCEMENT: This, ladies and gentlemen, closes the Washington Farm Reporter program broadcast from Station _____. Write either this station or the United States Department of Agriculture in Washington, D. C., for a free copy of leaflet No. 75-L, called "WARTS ON CATTLE."

UNITED STATES DEPARTMENT OF AGRICULTURE

Radio Service

OFFICE OF INFORMATION

YOUR FARM REPORTER AT WASHINGTON

Release Monday, July 13, 1931.

NOT FOR PUBLICATION

Speaking Time: 10 Minutes.

Crops and Soils Interview No. 26: RECENT PROGRESS IN HORTICULTURE.

ANNOUNCEMENT: And now for our daily report from Your Farm Reporter at Washington. Station_____ joins with the United States Department of Agriculture in presenting these interviews with specialists of the Department. The report today has to do with important developments in fruits and vegetables ---- Well, Mr. Reporter? ------

--ooOoo--

This old world of ours certainly does move!

I guess every farmer realizes farming has been going through some big changes.

But I'll admit I didn't realize that progress has been sneaking up through the old orchard like it has.

That is, I didn't realize it until H. P. Gould called my attention to some of the fundamental changes in orchard practice in the last twenty-five years.

That sounds like pretty big talk, to speak of fundamental changes in twenty-five years, in an art that is as old as the human race. Yet when you sit down with Mr. Gould and let him point out how horticulture has been changed by science and sound business sense, you can hardly help being impressed.

For instance, a lot of us can remember when we used to head back the young fruit trees each year. And we did a thorough job of it, too. The idea was to make the trees stocky and well branched. As a rule, the chief thing we succeeded in doing was delaying by years the time when the trees came into bearing. And if summer pruning was done, it was as likely to interfere with the forming of fruit buds as it was to help.

But our investigators began looking into pruning practices in connection with the use of fertilizers. Pruning and fertilizing may seem to be two different things, but they are closer together than you might think when it comes to their effect on stored-up food supplies within the tree.

The scientists found out some of the things the tree does under different conditions of pruning and feeding. They determined the amount of plant food in fruit spurs and twigs and its relation to the formation of fruit-buds and the setting and development of fruit. They found that those things may be decidedly influenced by pruning and by fertilizing.

As a result of those investigations, Mr. Gould declares, we now know that heavy cutting back of the annual growth takes a lot of stored-up food away from the young trees. And summer pruning may take away a lot of leaves at the time they are needed for the proper functioning of the tree. That is why we now prune young trees as little as we can and still train them to grow properly.

Then too, you remember they used to tell us to use nitrogen fertilizers very sparingly in the orchard. Now we make regular use of quickly available forms of nitrogen at certain periods in the season.

And, of course, there have been changes in insect and disease control by the use of insecticides and fungicides, and in the equipment for spraying. However, changes along that line have not been as revolutionary as along some other lines. The United States Department of Agriculture has a bulletin which gives rather full information for fruit growers about insecticides, spraying apparatus, and important insect pests. It is Farmers' Bulletin No. 908.

There has been a great deal done in the past few years on plant breeding and selection. As you may know, most of our fruit varieties originated as chance seedlings. And ever since long before you or I can remember, growers have planted selected seeds with a view to getting better varieties. But, it was more or less a hit or miss proposition. The principles of plant breeding and heredity were not understood. In fact the whole science of plant breeding is new. So new a lot of us have not yet learned to appreciate the advances that have been made.

Some of the most striking improvements in varieties by breeding have been made in our table vegetables, especially in the way of making them resistant to some of the diseases which cause such damage to truck.

For instance, there are the Washington strains of asparagus, bred for resistance to rust disease. Then we have a number of varieties of tomatoes which have taken the place of those older kinds which fell quick victims to wilt and other diseases. New lettuce varieties have contributed to the vast expansion of our lettuce growing industry in certain sections. Cabbage varieties resistant to yellows have also been produced.

And by the way, there is a bulletin on diseases of cabbages and related plants which some of you cabbage growers may want to get hold of. It is Farmers' Bulletin No. 1439.

But let's get back to the orchard. Prior to 20 years ago little attention was paid to the variations or mutations in buds on fruit trees. Fruit growers didn't recognize what those different buds meant for the weal or woe of the orchard. In recent years, however, fruit improvement by bud selection has been carried far.

Bud variations occur on fruit trees much more often than is commonly realized. And those variations are perpetuated in trees propagated from them. Those mutations may represent much of value or utter worthlessness.

Very much the same idea is involved in our seed potato improvement work. That is, we recognize that there may be superior yielding strains within a variety. Some strains may be superior to others in the absence of virus diseases which rob the plant of its vigor. Such superior strains may be "certified" by the proper authorities. It is believed that the use of certified seed has been the biggest factor in increasing the average acre yield of potatoes in this country by about 20 bushels since 1900.

It is now recognized that many fruit varieties must be pollinated by other varieties. It used to be thought that cross-pollination was the exception. Now we know it is more nearly the rule. There is a lot yet to be learned about cross-pollination, however.

And to get down to the roots of fruit growing, you remember we used to think that, as a rule, the stock had little influence on the characteristics of the top. Now we have swung around to the view that the rootstock has a great deal to do with the top and the way it behaves. For that reason, we try to get better stocks these days. And there is quite a swing from imported rootstocks to home-grown stocks.

These are just some of the changes which have taken place in horticulture in recent years. Other fundamental changes have been made, and are still taking place. All of which just emphasizes the importance of farmers keeping up with what is going on. This business of fruit and vegetable growing is not tied to any hitching post.

--ooOoo--

CLOSING ANNOUNCEMENT: The bulletins incidentally mentioned by Your Farm Reporter are free as long as the supply lasts. You can get copies either from this Station or by writing direct to the United States Department of Agriculture at Washington. "Information for Fruit Growers About Insecticides, Spraying Apparatus, and Important Insect Pests," is Farmers' Bulletin No. 908. "Diseases of Cabbages and Related Plants" is Farmers' Bulletin No. 1439.

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Russia has eaten most of her wheat. Russia has been practically out of the export wheat business. The peasants of Rumania have been eating more corn and feeding more corn to their hogs and cattle. Corn growing has largely taken the place of wheat growing in Rumania. Rumania has also ceased to be an important source of supply for other European countries. India has eaten more wheat at home and exported less since the World War.

With those competitors out of the western European market, the sources of supply have shifted from eastern Europe to our Western Hemisphere. Canada, the United States, and Argentina have been answering the increased call for wheat from across the big pond.

Our folks now ship twice as much wheat, as grain or flour, to Europe as before the War. Our Canadian neighbors during the same time, have increased their shipments four times; while the farmers of Argentina, since the War, have doubled the amount they ship.

Great Britain looks to Canada for most of the wheat eaten in the United Kingdom. On the Continent of Europe, we have been keeping up our trade in wheat more nearly on an equal footing with Canada and Argentina.

Picture three streams of wheat flowing from this Hemisphere toward that western Europe market; one from Canada, one from the United States, and one from Argentina. The volume of wheat flowing eastward from the United States is being squeezed and narrowed by the mighty pressure of wheat streams flowing across the Atlantic to the north and south of us.

But how about other world markets?" some of you are no doubt saying. As you may know, before the World War we held practically a monopoly of the wheat trade in the Orient and Pacific Islands. In the Orient, the people don't eat as much wheat as western people, but they are eating more wheat than they did. We ship nearly twice as much wheat to the Orient and Pacific Islands as we did before the War. In the meantime, however, competition from Australia and Canada has been increasing. Canada now ships almost as much as we do, and Australia sells almost as much in the Orient as Canada does.

The fact that we've been exporting twice as much wheat as we did before the World War may sound pleasing to us. We may wonder why all the fuss about adjusting our wheat acreage.

It seems from what Dr. Stine says, however, that the present prospects are that the demand in western Europe will probably not keep going up as it has been. On the other hand, the exportable surpluses of wheat in Canada, and Argentina, and Australia, and the Balkan countries are tending upward. Our wheat growers must be prepared to meet increasingly severe competition in international trade.

Then there is Russia. Russia may get back into the export wheat business. Russia has big undeveloped resources for wheat production. The Soviet government is making strenuous efforts to introduce machinery, and to make improvements in the growing of wheat. Dr. Stine holds that there is good reason to expect that those efforts will bear fruit in the form

of increased exports. Eventually, he thinks, Russia may have a big surplus that will be pressed on the export market.

Taken all in all, it seems probable that the world wheat consumption will not increase much faster than population increases, in the next few years. On the other hand, the prospects seem to be toward bigger wheat surpluses in countries which compete with us in the foreign market. With the danger of a greater increase in the world wheat crop than in the demand for it, the world situation would seem to make it advisable for American farmers to look ahead. Dr. Stine suggests we should seriously consider whether our land, and our farm organization and farm practices are best suited to wheat under these prospective conditions. In some sections, other crops or livestock may be better. Shifts should be made. But they should be made only after careful study of the prospects for other uses of the land.

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ANNOUNCEMENT: The talk to which you have just listened is one of a series of reports from your farm reporter at Washington. This station----- presents this series in cooperation with the United States Department of Agriculture. We present a report each day at this time, except on Saturdays and Sundays.

UNITED STATES DEPARTMENT OF AGRICULTURE
Radio Service
OFFICE OF INFORMATION

YOUR FARM REPORTER AT WASHINGTON. Wednesday, July 15, 1931

NOT FOR PUBLICATION.

Speaking Time: 10 Minutes. All Regions.

HOW UNCLE SAM RAISES RANGE CHICKENS AT BELTSVILLE, MARYLAND.

OPENING ANNOUNCEMENT: Ladies and gentlemen, Your Washington Farm Reporter recently made his second trip to Uncle Sam's big poultry farm at Beltsville, Maryland. If you can spare the next ten minutes, listen to the Reporter tell about how Uncle Sam raises chickens on a range. All right, Mr. Reporter.

--ooOoo--

Well folks, in opening to-day's program I'm reminded of the young wife who was ordering a chicken for the first time in her life.

"Madam," said the butcher, "shall I draw it for you?"

"Oh no," replied the confused lady, "your description of it is quite sufficient."

Now folks, my description of what I saw at Uncle Sam's big poultry farm the other Saturday morning may not be quite sufficient for some of you listeners, but it's the best I can do because television is not yet adapted to all of our radio receiving sets.

I visited the poultry section of the Government's Animal Husbandry Experiment Farm at Beltsville, Maryland, for the purpose of finding out how they raise chickens on range. I thought perhaps some of you listeners might be interested in this subject because, as most of you know, thousands and thousands of chickens are still produced under natural range conditions.

I believe I told you in a previous broadcast that the poultry farm at Beltsville consists of about 65 acres. There are plenty of trees for shade and there is plenty of bluegrass on the natural range which consists of about 15 acres.

Mr. S. K. Haynes, specialist in incubation and brooding at the Government farm is in charge of the range work. I might say that Mr. Haynes managed commercial poultry and duck farms in New York for many years before taking up his present work with Uncle Sam more than 15 years ago.

Range chickens at the Beltsville farm are raised under what is commonly called the "colony-brooder system." About 350 chicks are raised in one brooder house or "colony" and there are 22 such houses or colonies on the 15-acre range that I'm talking about.

The houses in use on the Beltsville range at the present time measure about 10 by 14 feet, but Mr. Haynes is going to try a little larger house --- say one about 12 by 16 feet. His present houses are about 8 feet high at the eaves but he thinks a height of say 4 feet at the eaves will be sufficient for the larger houses he has in mind. Under present arrangements Mr. Haynes has both shed-type and A-shaped houses.

Coal-burning brooder stoves are used in most of the brooder houses on the Government range because they are satisfactory for the climate around the Capital City. I asked Mr. Haynes about other methods of heating brooder houses, and he stated that electricity gave good results especially in mild weather.

I noticed that Mr. Haynes used sand for litter so I asked him if it was by preference or otherwise.

"I use sand litter," he said, "because it's fireproof, and because it makes the home easy to clean. I try to have the sand about two inches deep under the brooder and around the edge of the canopy, then I rake off the surface every week."

The colony houses are placed about 150 feet apart on the range to prevent the chickens from visiting and mixing too much. And of course, each house is supplied with suitable feed hoppers and drinking fountains.

Now let's take up the raising of range chicks, as it is practiced on Uncle Sam's farm at Beltsville, and follow it through step by step.

The baby chicks are taken from the incubators and placed in the colony houses which I have described, and as I said a moment ago approximately 350 chicks are assigned to each house.

The chicks are confined to this house for approximately one week, depending, of course, on the weather. At the beginning of the second week the chicks are permitted to use a small yard on the sunny side of the house.

The yard fence is rolled up and removed by the time the chicks are three weeks old and they are given the free use of the range. Although their nearest neighbors are only 150 feet away and they all have the use of the 15-acre range, yet the chicks mix very little because they are thoroughly accustomed to their houses before the fence is removed.

Chick feeding at the Beltsville farm is on the cafeteria or "help-yourself" order. Skim milk and water are before the young chicks all the time. During the first two weeks the chicks are fed a ration composed of one part of hard-boiled, infertile, eggs from the incubators, ground up shell and all in a meat chopper, two parts of cracker meal, two parts of wheat bran, two parts of dried buttermilk, and four parts of corn meal.

After the second week the chicks are fed a growing mash composed of corn meal, graham flour, bran, meat scrap, dried milk, and salt. He recommends this ration until the chickens are 4 or 5 months old or until they are ready for the laying house in the early fall. I may add that fine oyster shell and grit are before the chicks all the time.

I asked Mr. Haynes about culling, and he replied, "I'm always culling. I begin at the incubator and keep it up as long as I have chickens. However, my first regular culling takes place when I separate the cockerels from the pullets. That generally takes place when the chickens are between two and three months of age."

"What do you do with the cockerels,?" I asked.

"Save the best," he said, "for breeding purposes, use some for fattening experiments, and market the others."

"What do you do with the cull pullets?"

"Market them" he replied.

In connection with the cockerel fattening experiment I may say that the Beltsville farm has a separate range of about 12 acres where the young cockerels are raised after separation until they go to the fattening building which is now under construction.

After the cockerels are separated and go to their range, that leaves the pullets on their original range where they stay until they go to the laying houses in the early fall. Ventilation and sanitation are both watched carefully during the hot summer months.

The pullets are moved to the laying houses 3 or 4 weeks before they are ready to lay. That leaves the original chick range vacant, and here's what happens while there are no chicks on the range.

The ground around each house is well limed, thoroughly disked, and seeded to grasses and clover. That generally takes place in September and by the next spring there is plenty of nice, new, and clean sod for the baby chicks.

No, the whole range is NOT plowed. Only the barren ground right around the house. Mr. Haynes has been raising chickens on this 15-acre range every year for 8 years and his losses have been less than 5 per cent of the approximately 7,500 chickens that he raises each year. How's that for a record? Chick losses on big commercial farms as well as in farm flocks, run from 15 to 20 per cent.

The range chickens at Beltsville are not troubled with coccidiosis and B.W.D. as much as confined chickens are in many sections. That, of course, is due to a good grass range, and to the splendid management Mr. Haynes provides. He says that he likes to raise chickens on an open range, where conditions will permit, first, because they are more vigorous, second, they don't need cod-liver oil, third, they are less likely to practice toe-picking and cannabalism, and fourth, range-grown pullets are in better condition for the laying house in the fall.

Of course, there is some advantage in raising chickens under confinement, but it's still possible to raise them successfully on natural range by following the common-sense rules of nature that Mr. Haynes follows at Uncle Sam's poultry farm at Beltsville, Maryland.

--ooOoo--

CLOSING ANNOUNCEMENT: Ladies and gentlemen, you have been listening to Your Washington Farm Reporter broadcast a POULTRY program from Station _____. Write either this station or the United States Department of Agriculture in Washington, D. C., if you want a free copy of the WASHINGTON FARM REPORTER OF JULY 15, 1931.

UNITED STATES DEPARTMENT OF AGRICULTURE

Radio Service

YOUR FARM REPORTER AT WASHINGTON. Friday, July 17, 1931.

NOT FOR PUBLICATION.

Speaking Time: 10 Minutes.

HOW MANY YEARS WILL A COW GIVE MILK?

OPENING ANNOUNCEMENT: Ladies and gentlemen, Your Washington Farm Reporter is going to try to answer the question, "HOW MANY YEARS WILL A COW GIVE MILK?" I know you listening dairymen are anxious to hear the answer to that question so I'm going to pass over the "mike" and let Your Reporter report on that subject.

--ocOoo--

Well folks, the DAIRY question before the microphone today is, "HOW MANY YEARS WILL A COW GIVE MILK?" That, my friends, is an important question.

To my way of thinking, every cow in a dairy herd is either an advantage or a drawback to that herd. And when I speak of a draw-back I'm reminded of the mother of a Harvard football player, who, when asked what position her son had on the team, said "Well, I'm not very well acquainted with football terms, but I think he's what they call the 'DRAW-BACK.'"

According to the records of the Dairy Herd-Improvement Associations there are a lot of draw-backs in the dairy herds of this country. Some of these draw-backs are young cows whose production is below the profit line. Some are middle-aged cows whose production has never been above the profit line, while some are old cows whose production was once above the profit line, but is now descending the other side of the hill, shoved by Father Time.

Every cow has a period of peak production at some stage in her life. Afte this peak has been reached and passed, production generally starts on the downward trend. Some cows rise to a high peak of production early in life, hold a high level for a long time, and fall off in milk production slowly and gently until the end. Other cows reach their production peaks late in life, and fall off rapidly afterwards. These, of course, are the extremes, and there are all kinds of production records in between.

Now, how many years will a cow give milk? When I got that question from a dairyman in Old Kentucky I thought some listener was trying to get funny, but the more I studied about it the more I was convinced that it was a constructive question meant for a constructive purpose, so I got busy.

I went to the office of Dr. R. R. Graves who is in charge of the dairy cattle breeding, feeding, and management investigations for the United States Bureau of Dairy Industry. He referred me to Mr. M. H. Fohrman, one of his assistants, and the party was on.

"Now," said Mr. Fohrman, "you've asked a question that has a million answers."

"What do you mean?" I interrupted with another question.

"Just this." he said. "Exactly how MANY years a cow will give milk depends on a great many factors." Then he said that some cows go on producing milk, even when they have passed the age of 12 or 15 years, and a very few continue after they are 20 years old."

Gazing at the picture of a beautiful cow hanging above his desk, Mr. Fohrman said, "As I see it, a dairyman ought to be interested in how many years a cow will produce milk at a profit, rather than how many years she can actually produce some milk."

"Well," I cut in, "it strikes me that that's what the Kentucky dairyman had in mind when he asked the question, 'How many years will a cow give milk?'"

Leaning back in his chair, but still looking at the picture of the cow above his desk, Mr. Fohrman said, "We have a Jersey cow at the Bureau of Dairy Industry's experiment station at Beltsville, Maryland, that is 12 years old. At the peak of her present lactation period, while being milked twice a day, she produced more than 60 pounds of milk a day. That cow will undoubtedly show a good profit when her figures are all in, but even at that she is not producing as much as she did 5 years ago, because old age is affecting her. However, that Jersey cow is still more profitable at 12 years than some cows are during their peak period at 5 or 6 years."

"Mr. Fohrman," I said, "When is a cow at her peak in production?"

"That", he responded, "depends on a number of things, such as her inherited milk producing qualities, the kind and amount of feed she received, and finally, on care and management. For cows on official test the age of maximum production lies between 6 and 10 years." Turning to his telephone he said, "Dr. McDowell, please." After his conversation with Dr. McDowell, who is in charge of the Dairy Herd-Improvement Association work of the Bureau of Dairy Industry, he turned to me and said, "Dr. McDowell's records show that the average dairy cow remains in the herd about 5 years after she comes into production, and that the average cow is two and one-half years old when she freshens for the first time. According to those figures the average cow remains in production for approximately five years, or until she is in the neighborhood of seven or eight years old. That's the average. There are a great many cows above that figure and a great many below it. I should say," said Mr. Fohrman, "that the average peak of production for all dairy cows is around five or six years of age."

"Mr. Fohrman," I questioned, "what is the peak MONTH in the lactation period of a dairy cow?"

"The second month," he replied, "is generally the peak month for the average cow."

I asked if bad quarters and lost quarters of the udder had anything to do with a dairy cow's production.

Mr. Fohrman's answer to that question was YES. However, he said that the loss of one quarter of the udder did not cut down the production by one-fourth, but only by a much smaller fraction.

I thought by this time that I had gathered enough of general information on the subject, so I ventured the final question-- HOW CAN A DAIRYMAN KNOW WHEN A COW PASSES PEAK PRODUCTION AND STARTS DOWN THE OTHER SIDE OF THE HILL?

"By keeping accurate records," was Mr. Fohrman's quick and positive reply.

He says that well-kept records reveal the true worth of dairy cows all along the line from the time they first come into production until they pass out of the herd.

The real question, therefore, is not how many years will a cow give milk, but how many years will she produce milk at a profit? That question can be answered if you KEEP RECORDS.

Now, if you have old cows in your herd, look up their records and see what they are doing before you send them to the butcher. However, when the records reveal the cows that are not producing profitably, don't let such things as sentiment for old faithful cows, and the idea of keeping old cows to get fine calves sway your better judgment.

As Mr. Fohrman puts it, don't live back in the past with the old cows. Live in the future, and have faith in your young animals, and if you have been breeding properly you will not be disappointed in the results at the milkbucket.

Let me close by urging you to keep production records of your dairy cows. Not for one year, or for two years, but for every year. These records, and only these records, can answer the question "HOW MANY YEARS SHOULD I KEEP A DAIRY COW?"

--ooOoo--

CLOSING ANNOUNCEMENT: Ladies and gentlemen, you have been listening to Your Washington Farm Reporter broadcast a DAIRY program from Station _____ in co-operation with the United States Department of Agriculture. Dairy questions addressed to Your Washington Farm Reporter in care of this station will receive prompt attention.

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UNITED STATES DEPARTMENT OF AGRICULTURE

Radio Service

YOUR FARM REPORTER AT WASHINGTON. RELEASE Monday, July 20, 1931.

Crops and Soils Interview No. 28: Self-Starting Hay Fires.

ANNOUNCEMENT: Station--------- and the United States Department of Agriculture join in presenting your farm reporter at Washington. He will tell us what he has gathered from his consultations with specialists of the Department----------Well, Mr. Reporter, what's up now? ----------

****

Dr. C. A. Browne, of the Bureau of Chemistry and Soils, tells me the United States Department of Agriculture has thirty tons of hay undergoing a process of spontaneous heating in a barn on its farm at Beltsville, Maryland.

Some of you with some experience with hay fires are probably saying: "Well, why don't they do something about it? ------- "Don't they know they may burn up the barn?" --

From what Dr. Browne says, however, they are doing something about it. They have electrical thermometers stuck in that hay at twenty-seven different points. They are taking the temperature of that feverish hay twice a day.

Those specialists are also investigating the effect of the amount of moisture in the hay on the temperature, and the losses in weight and feed value which the hay undergoes during spontaneous heating. You understand, they are trying to find just what happens when hay gets that way, so they can find out how to prevent it.

That is well worth finding out, too. With a fire here and there in your county now and then, you may not notice how heavy the losses are -- unless you happen to be one of the losers --- but Dr. Browne quotes estimates which show that spontaneous combustion causes losses from the burning of barns and other farm property in these United States amounting to all of $20,000,000 a year, or even more.

Just think of it! One fifth of all the $100,000,000 damage by fires on farms each year comes from these self-starting fires. But that is not all! If you consider the loss of weight and feeding value which hay undergoes during spontaneous heating, which happens much more often than an actual outbreak of fire, the losses must really mount up to many times $20,000,000 a year.

In fact, Dr. Browne figures that at least one-tenth of our harvested grass crop is lost as a result of spontaneous heating. As he puts it, "It is just as surely lost and consumed as if our farmers had consigned every tenth load of their harvest to the flames."

That being the case, it is no wonder the scientists have taxed their ingenuity to rig up ways of measuring what goes on inside a hay stack, from the time it starts heating up until the time it may burst into flames.

And, by the way, any of you folks may be able to help in these investigations. If you see or hear of any cases of spontaneous combustion of hay, or if you learn of the discovery of burned out fire pockets in hay mows, bring it to the notice of Bureau of Chemistry and Soils, of the United States Department of Agriculture.

The Department scientists have been studying this question for some years now. And they have actually found out a good bit about what happens. But there is a lot yet to be learned before this question of spontaneous combustion can be completely solved.

Of course, you know the main purpose of curing hay is to dry out the natural moisture as fast as possible by exposure to the sun and air. The natural grass before it is cut is about 75 to 80 per cent moisture. The idea is to get that moisture down to 20 per cent or less.

If you cure the hay evenly until there is less than 20 per cent moisture in it, there is very little danger of its overheating in the stack or mow. But that thorough curing is not always practical. Maybe the weather is against you. Often in order to avoid the risk of rain, we pull in our hay before it is completely cured. In such cases, it may heat up until it bursts into flames.

The hay has to be mighty hot to do that. It takes a temperature of from 450 to 500 degrees to make the hay take fire. That was one of the things that had the scientists puzzled. They couldn't figure how the hay inside a stack could get that hot.

As Dr. Browne explains it, there seem to be three steps-up in the temperature.

In the first step, the heat is produced by the living grass itself. The life activities of the living cells which make up the grass plants keep up some time after the grass is cut. Those acitivities produce some heat. Not enough to feel when you touch the grass; if there is free circulation of air, that heat is carried away fast.

However if you rake that freshly cut grass in a pile, the heat of the grass inside the pile can't get out so well. You can feel the heat if you stick your hand inside the pile. When the heating begins in the interior of the mow, moisture is driven from the warmer to the cooler parts of the hay. As we say, the hay begins to sweat. When the temperature inside such a mass of heating hay gets to 110 degrees, the life of the grass cells is destroyed.

Then, as Dr. Browne points out, comes the second step in hay heating, by which the temperature is given another boost.

There are moulds and bacteria in hay naturally. But when the hay is thoroughly cured, it is too dry for those moulds and bacteria to thrive. But, when you stack the hay with a good bit of moisture still in it, conditions are right for those moulds to flourish, and increase and in doing that they make a lot more heat. They boost the heat inside the stack to something like 180 to 185 degrees.

But here comes the mystery back of many of our mysterious barn and hay stack fires! When the temperature inside the stack gets to 180 or 185 it kills off the bacteria and moulds which have boosted it that high. Sometimes, the hay starts slowly cooling off. When conditions are just right, however, the temperature goes on up. Why? -- That's what Dr. Browne and his fellow scientists are trying to find out. What boosts the heat the nearly 300 more degrees needed to set the hay afire?

What seems to happen, Dr. Browne says, is that those hay bacteria inside the mow where air can't get in, produce unstable chemical compounds that cause the hay to quickly burst into flames when any air accidentally gets into that hot pocket.

It is in that last step that the scientists are trying to learn more definitely just what does happen. If that hot pocket is small, the hay in it may just become charred without fursting into flame. In fact, statistics indicate that only about one in every eight cases of the charring of hay in a mow results in actual fire.

But if you smell that burnt odor about a hay mow, it is almost certain a fire pocket has formed somewhere inside. If the hay mow is not opened up, there is danger that the pressure of hot gases may force a channel out to the surface, then the whole business may burst into flames,

The best way to locate the fire pocket is to bore into the mow in different places with a hollow steel rod with a sharp cutting edge. Each time you pull the rod out, feel it. If it is very hot and the core of hay which you push out from the hollow rod looks burnt, you have located the fire pocket.

The thing to do, is to get that heated hay out right away. But before you do that, be sure you are ready to put out any fire that may start. If your community has a fire fighting apparatus, better call it.

When you take hay out of a smouldering hay-mow, you may let air into that fire pocket and cause it to break into flames. Drench any very hot or darkened places with water. And when you discover any charred pocket of hay, let the Bureau of Chemistry and Soils know about it. These scientists need all the evidence they can get on the conditions under which hay heats.

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ANNOUNCEMENT: Station-------is helping the investigation of self-starting hay fires by bringing you this talk from Dr. C. A. Browne of the Bureau of Chemistry and Soils, of the United States Department of Agriculture. You can help by reporting any cases of burned out fire pockets in hay which may come to your attention. Report to the Department. The address is Washington, D. C.

UNITED STATES DEPARTMENT OF AGRICULTURE

Radio Service

YOUR FARM REPORTER AT WASHINGTON. Wednesday, July 22, 1931.

NOT FOR PUBLICATION

Speaking Time: 10 Minutes. All Regions.

JUNKING OLD MODELS OF LIVESTOCK

OPENING ANNOUNCEMENT: "JUNKING OLD MODELS OF LIVESTOCK." That, ladies and gentlemen, is the subject of to-day's Washington Farm Reporter program broadcast from Station_____ in cooperation with the United States Department of Agriculture. All right, Mr. Reporter, we're ready for your story.

--oOo--

Thank you, Mr. Announcer. And now folks, since my subject is JUNKING OLD MODELS OF LIVESTOCK and since the announcer has asked for a story I'll comply with his request by telling you of the magician who apparently changed a man into a hundred-dollar bill in full view of the audience.

"Mr. Magician," called a good natured lady from the front row, "could you work that same trick with my husband?"

"Why, madam!" exclaimed the magician, "you don't want to get rid of your husband, do you?"

"No-----I don't want to get rid of my husband," replied the lady, "but you see I need the hundred dollars."

Now folks, to my way of thinking there are a lot of people in the livestock industry who, like the lady, need more money, but who, on the other hand still cling to the old, inefficient, and obsolete models of livestock.

"The livestock industry needs 1931 models of livestock and 1931 methods of management," says Dr. John R. Mohler, Chief of the United States Bureau of Animal Industry. I heard Dr. Mohler discussing this subject with one of his associates the other day and took advantage of the opportunity by asking him a few questions on the subject myself. For instance, I asked, "Is this a good time to junk old models of livestock?"

"Well," said Dr. Mohler, "this is the middle of the summer, fall is just around the corner, and it won't be long until time for expensive winter feeding. If you have some old, inefficient, and unprofitable animals that you expect to get rid of this winter-----it might be to your advantage to give some thought to getting rid of them this summer before time for winter feeding."

Perhaps I should explain that this does not mean selling animals out of season. It refers to the old obsolete animals. The old models that never will be worth any more than they are now. For instance, Dr. Mohler

says that some of our most highly prized animals a few years ago have lagged behind present-day progress and like the old-time phonograph, the motor car with two-wheel brakes and even the earlier radio receiving sets, have passed out of present-day usefulness.

An industrial concern which expects to prosper does not use obsolete methods and equipment. The most progressive organizations in the industrial world generally employ the most modern and up-to-date methods. They have to do it to meet competition.

Of course, it takes courage and capital to junk old machinery and remodel old factories, but in the end these are wise and nearly always economical as well as profitable procedures to follow. One of our automobile manufacturers, for example, closed down one of the largest industrial plants in the world for a period of several months a few years ago for the purpose of bringing his product up-to-date.

Now let's turn from the example set by industrial organizations to the situation in the livestock industry. How are you livestock listeners meeting this situation of junking old models of livestock? Are you ready to admit the obsolescence of types of livestock that no longer meet production needs and market requirements? Do you realize that consumer demands change and that livestock models have to change to meet these demands? These, my friends, are only a few of the many high lights Dr. Mohler discussed in the short time I listened to him talk about junking old models of livestock.

Dr. Mohler is a splendid talker and I didn't want to interrupt his conversation, but I did put in a few questions. One was, "What is an obsolete animal?"

"An obsolete animal," said Dr. Mohler, "is one that fails to meet present day usefulness. There are three common types of obsolete or old models of livestock."

"What are they?" I asked.

"First," he said, "are the ones that for any reason fail to repay the cost of maintenance. The second type includes scrub and grade sires and even inferior types of purebred sires. The third type of obsolete animals includes those affected with communicable diseases."

According to Dr. Mohler there are literally millions of animals included in the three obsolete classifications I have just given.

Dr. Mohler says that livestock growers who follow obsolete methods of production can be divided into two classes. First, are those who take slight interest in improving their stock, and second, those who would like to make improvements but who are prevented from doing so by adverse circumstances. He believes that the more fortunate and progressive stockmen in the industry should try to interest and aid both of these classes.

Chutes and squeeze gates have replaced the once picturesque ranch method of roping and throwing range stock popular back in the boyhood days of our good friend Will Rogers. The old hog lot has become obsolete because

of improvement in swine sanitation. The modern incubator is aiding and in some instances almost eliminating the sitting hen.

"The old methods," said Dr. Mohler, "were all good in their days, but times have changed and are still changing and stockmen must change with them if they are to keep abreast of present-day progress. For instance," he said, "I can measure the trend of livestock progress to some degree by the steady stream of new and revised Department of Agriculture publications on livestock that pass over my desk. The recommendations of a few years ago, even of last year, are constantly revised and brought up to date with newer and better information that will help stockmen junk obsolete models, produce better and more efficient models and to take better care of the profitable animals."

Speaking of suggested improvements Dr. Mohler said, "There is need, first, of breeding types that are more closely in accord with market demands." Then he asked the question, "Why raise cattle, for instance, to ages of 4, 5, or even 6 years when the market demands smaller carcasses that will yield the cuts preferred by the smaller families?

"If, as now appears, quality in meat is an inherited character, we may wisely develop within the breed, strains of cattle, sheep, and swine, that will produce meat of assured quality."

Dr. Mohler says that it has been conservatively estimated that more than 50 per cent of our domestic breeding stock is obsolete from the standpoint of most efficient production. If that's true, and Dr. Mohler believes that it is, then in the interest of progress livestock producers ought to cull out old model animals and abandon old methods which have become obsolete and uneconomic.

If you desire information as to the best time to market animals, get in touch with your own State college of agriculture, or if you prefer, write to the United States Department of Agriculture in Washington, D.C.

CLOSING ANNOUNCEMENT: Ladies and gentlemen, you have been listening to one of the regular Washington Farm Reporter programs broadcast from Station_____ in cooperation with the United States Department of Agriculture.

UNITED STATES DEPARTMENT OF AGRICULTURE

Radio Service

OFFICE OF INFORMATION

YOUR FARM REPORTER AT WASHINGTON. Friday, July 24, 1931.

NOT FOR PUBLICATION.

Speaking Time: 10 Minutes. All Regions.

WHAT IS A PROVED BULL?

OPENING ANNOUNCEMENT: "WHAT IS A PROVED BULL?" That, is the question Your Washington Farm Reporter is going to try to answer today in his regular DAIRY program broadcast from Station _____ in cooperation with the United States Department of Agriculture. All right, Mr. Reporter.

---ooOoo---

Folks, I want to use the ten minutes allotted to me today in talking to you about PROVED BULLS. I'm talking on that subject because it's impossible to look at a bull and tell whether or not he's fit to head a herd of good dairy cows. When I think of selecting anything on general appearance I'm reminded of a conversation between a housewife and a tramp. It ran like this:

"No," said yhe housewife, "I don't think I ought to give you anything to eat because you look strong enough to work and earn your living." "I know," said the tramp, "but you can't go by looks, because you are beautiful enough to be on the stage."

There are too many dairy bulls selected on beauty and general appearance rather than on performance and records of their offspring. At least that's the substance of what I picked up in a recent conversation with William E. Winternmeyer of the United States Bureau of Dairy Industry.

Mr. Winternmeyer has done quite a bit of work on what progressive dairymen call the PROVED-BULL problem. Proving a bull is simply finding out his worth. It's giving him a classification. If he's a good bull, proving-----proves it. If he's not worth a two-cent postage stamp, proving — proves that also.

Winternmeyer told me that a bull is considered proved when the yearly milk and butterfat records of 5 or more of his unselected daughters have

been compared with the records of their dams, under comparable conditions of feed and care.

"Why," I asked, "does it have to be 5 daughters?"

"It doesn't have to be 5," Wintermeyer replied. "It can be many more than that, but that's the smallest number that should be used, because fewer than that would not give a fair average."

"Why," I asked, "do you say unselected daughters?"

"Because," he replied, "every bull has some daughters that are better than others, and it would not be fair to pick or select 5 of his best daughters when you want an average."

Some dairymen have the idea that the name "PROVED BULL" is a trademark of value, and that all provedbulls are good bulls. I asked Mr. Wintermeyer about that, and he said;

"Proving a bull does not increase or decrease his qualities. It simply points his transmitting ability and brings it to light in the form of records so that it's possible to determine which bulls should be used in herds made up of cows of a known production." He then gave me the following examples:

Two purebred bulls of the same breed were proved. Each bull had ten daughters whose yearly production records were compared with the records of their dams. For the sake of simplicity we'll call one bull A, and the other B.

The ten daughters of Bull A averaged 114 pounds of butterfat per year more than their dams, while the ten daughters of Bull B averaged 50 pounds of butterfat per year LESS than their dams.

Which was the better bull?

Hold on now. Both of these bulls were proved, classified, and rated. One raised the production of his daughters above the production of their dams, while the other lowered it. But you can't say that one proved bull is better than another proved bull, until you know the average production of the dams of the respective daughters. Let me explain.

A bull whose daughters produce on an average 475 pounds of butterfat, even though their dams average 500 pounds, is a better bull than one whose daughters produce 300 pounds of butterfat, which is an average of 50 pounds more than their 250-pound-butterfat dams.

Putting it another way, you can raise the average production of a medium or low producing herd easier than you can raise the production in a herd where the average is already high.

The proved bull that raised the average production of his daughters 50 pounds above the average production of their dams did a good job and

increased the efficiency of that herd, but that bull would not be suitable to head the 500 pound herd.

The proved bull that lowered the butterfat production of his daughters on an average of 25 pounds below their 500-pound dams should be classed as a good bull; not good enough to head a herd of such high producers but good enough for a lower-producing herd. Now get this point.

A proved bull is rated or classified, and that classification makes it possible to know whether to use him on low,medium,or high producing cows. In other words, it takes the guessing out of the breeding end of the dairy business.

The work of proving bulls,through the use of Dairy Herd Improvement Association records, was started by the United States Department of Agriculture in 1916. It was started for the purpose of increasing efficiency in milk production. Proving bulls has nothing to do with the increased production of the cows you now have, but is an important link in the chain of efficient production, and if you are in the dairy business for life or for a long period, it would undoubtedly be to your interest to investigate the proved-bull proposition.

It takes time to prove a bull. As a matter of fact, a bull has to be about 5 years old before he will have five or more unselected daughters whose records can be compared with those of their dams. That explains why proved bulls are comparatively scarce.

I say comparatively scarce, because although the work of proving bulls was started in 1916, on January 1, 1931, there were only 1,295 proved dairy bulls in this country that had been proved with Dairy Herd Improvement Association records. These bulls are now scattered through 33 states. The proving work is growing, but it will be a long time before we have enough proved dairy bulls.

Three hundred and eighty-one bulls were proved in 1930. Of this number only 54 were reported living, 216 were known to be dead, and 111 were A.W.O.L. That tabulation goes to show that many dairy bulls are killed or disposed of before they are old enough to be proved. Mr. Wintermeyer says that killing off promising dairy bulls before they have had an opportunity to be proved is a hard blow to the dairy industry.

He suggests that dairymen able to own bulls should keep the promising individuals until they can be proved. Many dairymen dispose of bulls as they grow older, because they say old bulls are mean and unruly. That may be true, but usually they can be kept safely when properly housed and managed.

There were 1,112 active Dairy Herd-Improvement Associations in the United States on January 1, 1931. If each association proved one bull during the year, that would boost the number of proved bulls rapidly, and this would be a tremendous asset to the dairy industry.

If you want more information on the subject of proved bulls, ask this station to send you a free copy of Circular No. 3-C, entitled "PROVED DAIRY SIRES."

CLOSING ANNOUNCEMENT: Ladies and gentlemen, you have been listening to the Washington Farm Reporter program broadcast from Station _____. Write either this station or the United States Department of Agriculture in Washington, D. C., if you want a free copy of Circular No.3-C, called "PROVED DAIRY SIRES."

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UNITED STATES DEPARTMENT OF AGRICULTURE

Radio Service

OFFICE OF RY INFORMATION
JUL 22 1931
U. S. Department of Agriculture

YOUR FARM REPORTER AT WASHINGTON. RELEASE Monday, July 27, 1931

NOT FOR PUBLICATION

Crops and Soils Interview No. 30: Concerning taxes

Speaking Time: 10 Minutes

ANNOUNCEMENT: Your farm reporter at Washington will now report to us another of his interviews with specialists of the United States Department of Agriculture. He has been to our expert economists to inquire about farm taxes, and what can be done about them? --- And what is being done to settle our big tax puzzle --- Well, Mr. Reporter?

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From what Mr. B. W. Allin tells me, the investigations of the Bureau of Agricultural Economics and the experiment stations support the idea, most of us have had for some time, that farm taxes need revision and need it badly.

Mr. Allin is a farm taxation specialist of the Bureau and he is trying to find practical ways by which it may be possible to cut down the farmers' tax bill. Taxes have kept going up while farm land values have gone down. The situation is serious. But how to relieve it is no simple matter.

When we start talking about farm taxes being too high, the question comes up as to whether or not the level of all taxes is too high. In other words, maybe it is our expenses of government that are too high.

Well, thereare just two ways we can cut down on government expenses. We can either cut down on the things the government does for us, or we can get the same services for less money.

It has been suggested that we may be able to cut down expenses of local government by consolidating and thoroughly modernizing our machinery of local government. This is an age of mergers and consolidations. In many cases, it is claimed, two or more counties could be consolidated. In some cases, we now have two or more complete sets of county officials doing the work which might as well be done by one set. In the days before automobiles and good roads, we might have needed counties as small as those in most of our farming sections. Now, however, in many cases that need has vanished. It has been asserted that the local governmental services of most of the States would be improved by reducing the number of counties by at least one-third.

Of course, the possibilities along that line are different in different sections of the country, in different States, and in different parts of the

same State. To find what can be done will take investigation, and comparative study of local government expenses. It is a matter of actual facts and figures.

The county is only one unit. Other units such as townships and school districts offer other possibilities of economies by consolidation. Investigations now in progress are intended to determine just what such changes have to offer toward the reduction of the tax bill.

How about the fairness of our present taxes? For years, farmers and other real-estate owners have complained that our general property tax system is unfair to farmers. I asked Mr. Allin about that.

He said that in practice we have no such thing as a "general property tax system." He agrees that what we call a "general" property tax is virtually a real-estate tax. Our farm property is largely real estate and a farmer's taxes are largely local.

However, there is a trend toward the substitution of income, and gasoline, and other taxes for State purposes. And the States are also assuming a bigger share of the support of such things as roads and schools which we used to regard as strictly local affiars. I guess most folks agree now that a highway which is used mainly by through traffic should be built and kept up by the folks that are benefited by it rather than by the local communities through which the road may pass.

It seems fair that every expense that can be taken off the local government and distributed over a wider governmental unit in proportion as that wider unit enjoys the benefits and has the ability to contribute, should be distributed that way. Before that can be done, we will have to get the facts as to whether this or that road is local, or district, or State, or nationwide in its use and benefits. Many roads now considered to be merely the concern of individual townships are probably of as much importance to the people in the next town or even distant towns and cities as they are to farmers whom they serve directly.

Likewise, the benefits of education extend far beyond the school district in which the child may happen to get his training. County-wide school taxes help distribute the cost of education more evenly among the districts.

Mr. Allin expects such developments to go further than they have gone. But he questions whether they are going on fast enough. As a rule, he points out, the increasing share of the total tax burden taken over by non-farming people has <u>not</u> gone on fast enough to actually lower farm taxes.

In fact, some folks claim that broadening the tax base for the support of schools and roads will simply mean more taxes for city people --- not less for farmers --- unless accompanied by restrictions on expenditures.

As he sees it, the real issue is whether the increased expense undertaken as a result of the new tax is wise or unwise.

It is easier however, to add a new tax than to substitute that new tax for part of the old property tax. Take the gasoline tax, for instance. That tax was adopted only partially as a substitute for taxes real-estate owners would otherwise have paid. The fact of the matter is, the people wanted expensive automobile roads, and the real-estate owners would not, and probably could not have supplied the needed funds. Most of us look on the gasoline tax as fair, but it grew out of the resistance of real-estate owners to higher property taxes for roads. Its fairness was not enough.

In tax revision, Mr. Allin warns, there is always danger of creating new inequalities more serious than those we are trying to eliminate. That is another good reason for thorough study and investigation of the many phases of this hydra-headed tax problem. In planning changes in our tax systems, we need to have due regard for the kinds of taxes already used by the Federal Government as well as by the States. We should also take into account the inequality of tax payments as between different groups of non-farming people. Many believe that if real-estate taxes were levied on the basis of rental rather than selling value, a good part of the taxes now paid by farmers would be paid by owners of city real estate. Would such a change in the property tax actually lower farm taxes appreciably? And if it would, would it be fair to owners of city real estate? What has been the experience with that kind of taxes in Europe? Answers to these and other questions can be had only by careful study, Dr. Allin tells me

We must know about these things, he says, for unless we make some far-reaching changes in our governmental expenditures and in our revenue raising system, farmers will keep on paying relatively high taxes. Cutting down public expenses may help bring lower taxes but the high prices that prevailed when most of our public debts were contracted, and the tendency for public expenses to increase, and sheer inertia all point in the opposite direction. And if we ever get taxes down again we will have to make some provision to prevent them going right back up again.

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ANNOUNCEMENT: You have just heard a discussion of some of the phases of our big farm tax problem. Station _____ joins with the United States Department of Agriculture in presenting this report from your farm reporter at Washington. He will have another report for you Wednesday.

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UNITED STATES DEPARTMENT OF AGRICULTURE

Radio Service

OFFICE OF INFORMATION

YOUR FARM REPORTER AT WASHINGTON. Wednesday, July 29, 1931.

NOT FOR PUBLICATION

Speaking Time: 10 Minutes All Regions.

THE MIDSUMMER CULLING OF THE POULTRY FLOCK.

OPENING ANNOUNCEMENT: Ladies and gentlemen, this is the day Your Washington Farm Reporter broadcasts his regular POULTRY program from Station_____ in cooperation with the United States Department of Agriculture. His subject for this occasion is, THE MID-SUMMER CULLING OF THE POULTRY FLOCK. All right, Mr. Reporter.

---oOo---

Well folks, in opening to-day's program on the mid-summer culling of the poultry flock I'm reminded of the little girl who rushed up to her mother with this question: "Aren't black hens smarter than white hens?"

"Why no, dear," replied the mother, "I don't know that black hens are any smarter than white hens, but why do you ask?"

"Well I know they are," said the little girl, "because black hens can lay white eggs, but white hens can't lay black eggs."

I don't know exactly why it's necessary to cull and recull the laying flock so much unless it's due to the fact that some hens are smarter than others, and that these smart hens give loafing hens a black eye, so to speak, by laying a lot of eggs when loafing hens are molting and out of production.

Mr. A. R. Lee, poultry specialist of the United States Bureau of Animal Industry reminds us that now is the time to make the mid-summer culling of the poultry flock because the poor layers can generally be told by their appearance at this season. For instance, Mr. Lee says that MOLT at this season of the year is a visible sign of a poor layer. I suppose that the majority of you listeners know that early molters are nearly always poor layers. Therefore, for best results cull out all layers that start to molt before September.

The general appearance of a hen's head is another point that helps in classifying her. For instance, the comb and wattles of a poor layer will be shrunken and rather pale in color while a laying hen will have a plump comb, bright red in color, and waxy looking.

The legs, especially the shanks, and the beak of a laying hen appear to be bleached and somewhat pale in color while the legs and beak

of a poor layer have a deep, rich, yellow color. This also applies to the color of the vent.

The physical condition of a hen is the final indication to consider at midsummer culling time. For instance, a good layer has well-spread pelvic bones, and a soft flexible abdomen. On the other hand, a poor layer will have close-set pelvic bones, and a hard rigid abdomen.

Of course, I suppose you listeners understand that no ONE point is sufficient to classify a hen as a good layer or as a poor layer. All the major points that I have just given plus a number of minor points must be considered together before a poultryman can do intelligent and constructive culling.

Mr. Lee says that one of the first things to do at the midsummer culling is to get rid of the old hens. I asked him what he meant by old hens, and he replied;

"Those over two years old." Then he told me that hens are rarely ever profitable producers after the second laying season, except that Leghorns and other light breeds are sometimes profitable the third season. However, he warns that only the best should be kept for the third season and that the general farm flock of hens and the yearling pullets should be closely culled at the midsummer culling.

"Why," I inquired, "Mr. Lee is it so important to get the old hens out of the flock in the middle of the summer when they have been good layers up to this time?"

"Economic reasons," he replied. Then he told me that a hen eats about 6 pounds of grain a month, and that every nonproducing hen is, for all practical purposes, simply wasting this much feed. Therefore, get the molter out of the flock at the time of the midsummer culling and before the time for expensive winter feeding.

Mr. Lee says the majority of poultry raisers possess more culling information than they put into actual practice. He says that there are very few poultrymen who haven't heard of culling, through culling demonstrations, bulletins, and otherwise, and that the majority of them believe in culling, but that in reality only a small percentage of the poultry raisers put this information into actual practice.

In this connection Mr. Lee warns that with present low egg prices the need for close culling this summer and fall is more urgent than it has been for several years past.

About a month ago I told you to give every hen a fair chance at the feed hopper, especially at MASH so that if the laying instinct was a part of her make up that she would keep right on producing during the summer months and discard all thoughts of knocking off and going into an early molt. Mr. Lee says that moist mash will often help production during the hot summer months.

If your hens have been kept under normal conditions, have had a fair chance at the feed hopper, have received good general treatment, and are

going into a molt at this season of the year----Mr. Lee says that something is wrong.

If the fault is in the management and the remedy can be applied now---it may be possible to bring the hens back to production before any more of them start to molt, but when the molt is once started, there isn't much that can be done. It's far better to prevent the early molt than to try to cure it after it has started.

If the fault is in the feed, that can be remedied. I have just told you that moist mash is relished by hens at this season. It will often be eaten in liberal quantities while similar mash in a dry condition will be passed up completely or eaten sparingly. One or two feeds of moist mash a day will often keep a hen laying when the weather is hot and dry.

Of course, if the fault is not in management, and not in feeding, but in the stock itself, then that's a bird of another color and you know the answer to that problem just as well as I do.

I asked Mr. Lee how close a poultryman could cull.

"That," he said, "depends on how well the flock produced this past year." That, of course, brings up the question of records. It isn't practical to trap nest on the average farm, but flock records can be kept on every farm. They are an important part of the poultry business and serve as guides to culling, changing strains, feeding, and nearly everything else connected with the poultry industry.

We haven't time to go into details about keeping poultry records, but if you are interested in that subject, let me suggest that you write to this station and ask for a free copy of Farmers' Bulletin No. 1614-F, called "BUSINESS RECORDS FOR POULTRY KEEPERS."

If you want additional information about culling you can get that from Farmers' Bulletin No. 1524-F, called "FARM POULTRY KEEPING."

In closing, let me repeat that this is practically the first day of August, and that it's now time for the midsummer culling. Present egg prices make close culling look like sound business sense.

CLOSING ANNOUNCEMENT: Ladies and gentlemen, you have been listening to the Washington Farm Reporter broadcast a POULTRY program from Station_____. Write either this station or the United States Department of Agriculture in Washington, D. C., for free copies of Farmers' Bulletin No. 1614-F, called "BUSINESS RECORDS FOR POULTRY KEEPERS," and Farmers' Bulletin No. 1525-F, called "FARM POULTRY RAISING."

UNITED STATES DEPARTMENT OF AGRICULTURE

Radio Service

OFFICE OF INFORMATION

YOUR FARM REPORTER AT WASHINGTON. Friday, July 31, 1931.

NOT FOR PUBLICATION.

Speaking Time: 10 Minutes. All Regions.

ARE YOU GOING TO THE FAIR THIS FALL?

OPENING ANNOUNCEMENT: Ladies and gentlemen, this is the period when Your Washington Farm Reporter of the United States Department of Agriculture joins with Station_____in broadcasting a LIVESTOCK program. The subject for this occasion is FAIRS AND EXPOSITIONS. All right, Mr. Reporter.

---oooOooo---

Well folks, the question before the microphone today is, "ARE YOU GOING TO THE FAIR THIS FALL?"

That's a timely question because tomorrow is the first day of August and August sees the beginning of many fairs in the United States.

Doubtless many of you listeners will attend one or more of the numerous livestock and agricultural expositions this fall. Some of you will attend for the thrill and pleasure that comes from going to the fair. Others will attend with an idea of studying the exhibits and learning the latest "fashions" in the fields of livestock and agriculture. I say the latest "fashions" because fairs are in reality "fashion plates" of the agricultural industry. They are the "boardwalks" where we go to compare, and be compared; to see, and to be seen. Speaking of "fashions" in the livestock industry reminds me of the story of the old lady who was scolding her butcher for selling her a tough piece of meat.

"Why," she said, that meat was so tough that I could have soled my shoes with it."

"Well, why didn't you?" roared the butcher.

"I would have," said the old lady, "but I couldn't drive the tacks through it."

Naturally I don't know why that particular piece of meat was tough, but I do know that old animals often produce tough meat, and that old animals are not pictured on the "fashion plates" of the modern stockyards. As an illustration of the changes which have been brought about the Chicago International Livestock Exposition last fall exhibited a carload of 15 head of mammoth steers averaging nearly 2,100 pounds a head. Such animals were typical of the market run of a third of a century ago, and presented marked contrast to the 1930 champion carload of smoothly fleshed, trim quality steers that averaged 970 pounds in weight.

Putting it another way the livestock and agricultural fashions of today are not what they were 25 years ago. They are like the old Gray Mare--not what they used to be, and progressive farmers who like to keep abreast of the times and of the fashions often make it a practice to attend fairs and expositions for the purpose of seeing the new and changing fashions in their various fields.

Dr. C.D. Lowe is extension livestock specialist of the United States Department of Agriculture. His headquarters are in Washington, but his job takes him into every State in the Union and sometimes even across the borders of Canada and Mexico. He tries to keep up with what's going on in the livestock industry, and naturally attends many fairs and expositions in the course of his work.

I met Dr. Lowe on the elevator of the Washington Monument the other day while he was showing some visiting friends the wonders of the National Capital.

At the top of the 555 foot shaft Dr. Lowe's friends entertained themselves for about thirty minutes by viewing the Capital City and the landscape from the four windows provided for that purpose. While this was going on Dr. Lowe and I took advantage of the situation by opening up on fairs and expositions.

"Dr. Lowe," I said, "can a livestock farmer get anything that will help him in his business by attending these agricultural fairs?"

"You just bet he can," was the speaker's quick reply as he gazed down a 15-mile stretch of the Potomac River.

The community fair is good for the community, the county fair is good for the county, the State fair is good for the State, and the big national and international expositions are good for the country as a whole because they keep us abreast of agricultural changes and fashions. I remember judging babies one time at a community fair. One baby was counted out of the contest because it was too fat. The mother put on war clothes and got ready for action, but became reconciled when the county health officer told her and the crowd how to build surplus fat into strong, hard muscles. That community fair was worth a great deal to the lady in question as well as to hundreds of others.

We often judge between two objects by comparing one with the other. Dr. Lowe says that sweethearts are sometimes selected that way. He may have been speaking from experience, but be that as it may, people who attend fairs have a wonderful opportunity to learn by seeing and comparing objects,

projects, exhibits, and demonstrations.

Dr. Lowe believes that more people ought to exhibit their products at our fairs. Of course, it's impossible for everybody to win first place or even "get in the money," as fairmen express it, but every person who exhibits has an opportunity to benefit from that competition, because wholesome competition is the life of an industry.

If you are inclined to believe that you have the best products in the world, trot them out to a community, county or even a State fair and enjoy the thrill of wondering where the judge is going to place the ribbon. That'll give you a new start. A writer once said "The spice of life is in its thrilling mysteries. Keep your interest in them and the years can't make you old."

This is the last day of July. Hundreds of community fairs have already been held. County fairs are getting under way, and will be followed by the many State Fairs. As a matter of fact the North Dakota State Fair closed last week. The fair season opens in the northernmost States around the first of August and advances towards the Gulf where it winds up the season along about Halloween.

The State fairs are generally followed by the four big national and international expositions. The national Dairy Show exhibits in its permanent home in St. Louis. The dates for this year are October 10-18 inclusive. The Pacific International Livestock Exposition takes place at Portland, Oregon, and will be held this year from October 24 to 31. The American Royal Livestock Show takes place in the Thrifty metropolis called Kansas City. It will be held this year from November 14 to the 21. Following on the heels of this show the International Livestock Exposition will swing open its gates at the stockyards in Chicago. The internation runs from November 28 to December 5.

The United States Department of Agriculture will have educational exhibits at nearly all of the big fairs this fall. You are invited to look them over, and to ask questions of the attendants in charge.

Don't forget to examine the exhibits of that army of boys and girls enrolled under the banner of the 4-H Clubs. Dr. Lowe says that they are helping to change the fashions in agriculture, and if you want to see what's new---take a peep at their exhibits.

If you attend a fair this fall, get a catalog, if possible, as soon or even before you arrive and study it carefully so as to be able to take in the exhibits of particular interest to you. Try also to gather information that you can take home and put into practice.

I haven't said anything about the thrills that go with the amusements and the "mid-ways" of the bigger fairs. You'll find out about them when you get there.

Properly conducted fairs have many more advantages than I can enumerate in a 10-minute talk. As one fair manager puts it, "There's something for everybody." In conclusion, let me ask you the same question that I asked Dr. Lowe in the top of the Washington Monument. "ARE YOU GOING TO THE FAIR THIS FALL?"

CLOSING ANNOUNCEMENT: This, ladies and gentlemen, brings to a close the 10-minute Washington Farm Reporter program broadcast from Station_____ in cooperation with the United States Department of Agriculture.
